

Nucleotide and amino acid sequences (see SEQ ID NO: 1 and 2) of a primate, e.g., human, IL-7R $\alpha$ ; predicted signal cleavage site indicated.

```

ctctctctct atctctctca ga atg aca att cta ggt aca act ttt ggc atg 52
Met Thr Ile Leu Gly Thr Thr Phe Gly Met
-20
gtt ttt tct tta ctt caa gtc gtt tct gga gaa agt ggc tat gct caa 100
Val Phe Ser Leu Leu Gln Val Val Ser Gly Glu Ser Gly Tyr Ala Gln
-10 -5 -1 1 5
aat gga gac ttg gaa gat gca gaa ctg gat gac tac tca ttc tca tgc 148
Asn Gly Asp Leu Glu Asp Ala Glu Leu Asp Asp Tyr Ser Phe Ser Cys
10 15 20
tat agc cag ttg gaa gtg aat gga ctg cag cat tca ctg acc tgt gct 196
Tyr Ser Gln Leu Glu Val Asn Gly Ser Gln His Ser Leu Thr Cys Ala
25 30 35
ttt gag gac cca gat gtc aac acc acc aat ctg gaa ttt gaa ata tgt 244
Phe Glu Asp Pro Asp Val Asn Thr Thr Asn Leu Glu Phe Glu Ile Cys
40 45 50
ggg gcc ctc gtg gag gta aag tgc ctg aat ttc agg aaa cta caa gag 292
Gly Ala Leu Val Glu Val Lys Cys Leu Asn Phe Arg Lys Leu Gln Glu
55 60 65 70

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FIG. 1A

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ata tat ttc atc gag aca aag aaa ttc tta ctg att gga aag agc aat      340
ile tyr phe ile glu thr lys lys phe leu leu ile gly lys ser asn      85
                                     75
                                     80
ata tgt gtg aag gtt gga gaa aag agt cta acc tgc aaa aaa ata gac      388
ile cys val lys val gly glu lys ser leu thr cys lys lys ile asp      100
                                     90
                                     95
cta acc act ata gtt aaa cct gag gct cct ttt gac ctg agt gtc atc      436
leu thr thr ile val lys pro glu ala pro phe asp leu ser val ile      110
                                     105
                                     115
tat cgg gaa gga gcc aat gac ttt gtg gtg aca ttt aat aca tca cac      484
tyr arg glu gly ala asn asp phe val val thr phe asn thr ser his      125
                                     120
                                     130
ttg caa aag aag tat gta aaa gtt tta atg cat gat gta gct tac cgc      532
leu gln lys lys tyr val lys val leu leu met his asp val ala tyr arg      140
                                     135
                                     145
cag gaa aag gat gaa aac aaa tgg acg cat gtg aat tta tcc agc aca      580
gln glu lys asp glu asn lys lys trp thr his val asn leu ser ser thr      155
                                     160
                                     165

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FIG. 1B

aag ctg aca ctc ctg cag aga aag ctc caa ccg gca gca atg tat gag 628  
 Lys Leu Thr 170 Leu Leu Gln Arg Lys Leu Gln Pro Ala Ala Met Tyr Glu 180  
 att aaa gtt cga tcc atc cct gat cac tat ttt aaa ggc ttc tgg agt 676  
 Ile Lys Val Arg Ser Ile Pro Asp His Tyr Phe Lys Gly Phe Trp Ser 185  
 gaa tgg agt cca agt tat tac ttc aga act cca gag atc aat aat agc 724  
 Glu Trp Ser Pro Ser Tyr Tyr Phe Arg Thr Pro Glu Ile Asn Asn Ser 200  
 tca ggg gag atg gat cct atc tta cta acc atc agc att ttg agt ttt 772  
 Ser Gly Glu Met Asp Pro Ile Leu Leu Thr Ile Ser Ile Leu Ser Phe 215  
 ttc tct gtc gct ctg ttg gtc atc ttg gcc tgt gtg tta tgg aaa aaa 820  
 Phe Ser Val Ala Leu Leu Val Ile Leu Ala Cys Val Leu Trp Lys Lys 235  
 agg att aag cct atc gta tgg ccc agt ctc ccc gat cat aag aag act 868  
 Arg Ile Lys Pro Ile Val Trp Pro Ser Leu Pro Asp His Lys Lys Thr 250  
 ctg gaa cat ctt tgt aag aaa cca aga aga aat tta aat gtg agt ttc 916  
 Leu Glu His Leu Cys Lys Lys Pro Arg Lys Asn Leu Asn Val Ser Phe 265  
 270 275

FIG. 1C

aat cct gaa agt ttc ctg gac tgc cag att cat agg gtg gat gac att 964  
 Asn Pro Glu Ser Phe Leu Asp Cys Gln Ile His Arg Val Asp Asp Ile  
 280 285 290  
 caa gct aga gat gaa gtg gaa ggt ttt ctg caa gat acg ttt cct cag 1012  
 Gln Ala Arg Asp Glu Val Glu Gly Phe Leu Gln Asp Thr Phe Pro Gln  
 295 300 305  
 caa cta gaa gaa tct gag aag cag agg ctt gga ggg gat gtg cag agc 1060  
 Gln Leu Glu Glu Ser Glu Lys Gln Arg Leu Gly Gly Asp Val Gln Ser  
 315 320 325  
 ccc aac tgc cca tct gag gat gta gtc gtc act cca gaa agc ttt gga 1108  
 Pro Asn Cys Pro Ser Glu Asp Val Val Thr Pro Glu Ser Phe Gly  
 330 335 340  
 aga gat tca tcc ctc aca tgc ctg gct ggg aat gtc agt gca tgt gac 1156  
 Arg Asp Ser Ser Leu Thr Cys Leu Ala Gly Asn Val Ser Ala Cys Asp  
 345 350 355  
 gcc cct att ctc tcc tct tcc agg tcc cta gac tgc agg gag agt ggc 1204  
 Ala Pro Ile Leu Ser Ser Arg Ser Leu Asp Cys Arg Glu Ser Gly  
 360 365 370  
 aag aat ggg cct cat gtg tac cag gac ctc ctg ctt agc ctt ggg act 1252  
 Lys Asn Gly Pro His Val Tyr Gln Asp Leu Leu Ser Leu Gly Thr  
 375 380 385

FIG. 1D

```

aca aac agc acg ctg ccc cct cca ttt tct ctc caa tct gga atc ctg      1300
Thr Asn Ser Thr Leu Pro Pro Phe Ser Leu Gln Ser Gly Ile Leu      405
395
aca ttg aac cca gtt gct cag ggt cag ccc att ctt act tcc ctg gga      1348
Thr Leu Asn Pro Val Ala Gln Gly Gln Pro Ile Leu Thr Ser Leu Gly      420
410
tca aat caa gaa gaa gca tat gtc acc atg tcc agc ttc tac caa aac      1396
Ser Asn Gln Glu Glu Ala Tyr Val Thr Met Ser Ser Phe Tyr Gln Asn      435
425
cag tgaagtgttaa gaaacccaga ctgaacttac cgtgagcgac aaagatgatt      1449
Gln
taaaaggga gctagagtt cctagtctcc ctccacagcac agagaagaca aaattagcaa      1509
aaccocacta cacagtctgc aagattctga aacattgctt tgaccactct tctgagttc      1569
agtggcactc aacatgagtc aagagcatcc tgcttctacc atgtggattt ggtcacaaagg      1629
ttaaaggtga cccaatgatt cagctattt      1658

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FIG. 1E

Nucleotide and amino acid sequences (see SEQ ID NO: 3 and 4) of a primate,  
e.g., human, R82; predicted signal cleavage site indicated.

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cggcaccgagg gc atg ggg cgg ctg gtt ctg tgg gga gct gcc gtc ttt 51
Met Gly Arg Leu Val Leu Leu Trp Gly Ala Ala Val Phe -10
-20
ctg ctg gga ggc tgg atg gct ttg ggg caa gga gga .gca gca gaa gga 99
Leu Leu Gly Gly Trp Met Ala Leu Gly Gln Gly Gly Ala Ala Glu Gly 5
-5
gta cag att cag atc atc tac ttc aat tta gaa acc gtg cag gtg aca 147
Val Gln Ile Gln Ile Ile Tyr Phe Asn Leu Glu Thr Val Gln Val Thr 20
10
tgg aat gcc agc aaa tac tcc agg acc aac ctg act ttc cac tac aga 195
Trp Asn Ala Ser Lys Tyr Ser Arg Thr Asn Leu Thr Phe His Tyr Arg 30
25
ttc aac ggt gat gag gcc tat gac cag tgc acc aac tac ctt ctc cag 243
Phe Asn Gly Asp Glu Ala Tyr Asp Gln Cys Thr Asn Tyr Leu Leu Gln 50
40
gaa ggt cac act tcg ggg tgc ctc cta gac gca gag cag cga gac gac 291
Glu Gly His Thr Ser Gly Cys Leu Leu Asp Ala Glu Gln Arg Asp Asp 60
70

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FIG. 2A

```

att ctc tat ttc tcc atc agg aat ggg acg cac ccc gtt ttc acc gca      339
ile leu tyr phe ser ile arg asn gly thr his pro val phe thr ala      85
75

agt cgc tgg atg gtt tat tac ctg aaa ccc agt tcc ccg aag cac gtg      387
ser arg trp met val tyr tyr leu lys pro ser ser pro lys his val      100
95

aga ttt tcg tgg cat cag gat gca gtg acg gtg acg tgt tct gac ctg      435
arg phe ser trp his gln asp ala val thr val thr cys ser asp leu      115
105

tcc tac ggg gat ctc ctc tat gag gtt cag tac cgg agc ccc ttc gac      483
ser tyr gly asp leu leu tyr leu tyr glu val gln tyr arg ser pro phe asp      130
120

acc gag tgg cag tcc aaa cag gaa aat acc tgc aac gtc acc ata gaa      531
thr glu trp gln ser lys gln glu asn thr cys asn val thr ile glu      150
140

ggc ttg gat gcc gag aag tgt tac tot ttc tgg gtc agg gtg aag gct      579
gly leu asp ala glu lys cys tyr ser phe trp val arg val lys ala      160
155

atg gag gat gta tat ggg cca gac aca tac cca agc gac tgg tca gag      627
met glu asp val tyr gly pro asp thr tyr pro ser asp trp ser glu      170
175

```

FIG. 2B

gtg aca tgc tgg cag aga ggc gag att cgg gat gcc tgt gca gag aca 675  
 Val Thr Cys Trp Gln Arg Gly Glu Ile Arg Asp Ala Cys Ala Glu Thr  
 185 190  
 cca acg cct ccc aaa oca aag ctg tcc aaa ttt att tta att tcc agc 723  
 Pro Thr Pro Pro Lys Pro Lys Leu Ser Lys Phe Ile Leu Ile Ser Ser  
 200 205 210 215  
 ctg gcc atc ctt ctg atg gtg tct ctg ctc ctc ctt ctg tct tta tgg aaa 771  
 Leu Ala Ile Leu Leu Met Val Ser Leu Leu Leu Ser Leu Trp Lys  
 220 225 230  
 tta tgg aga gtg aag aag ttt ctg att ccc agc agc gtg cca gac ccg aaa 819  
 Leu Trp Arg Val Lys Lys Phe Leu Ile Pro Ser Val Pro Asp Pro Lys  
 235 240 245  
 tcc atc ttc ccc ggg ctc ttt gag ata cac caa ggg aac ttc cag gag 867  
 Ser Ile Phe Pro Gly Leu Phe Glu Ile His Gln Gly Asn Phe Gln Glu  
 250 255 260 265  
 tgg atc aca gac acc cag aac gtg gcc cac ctc cac aag atg gca ggt 915  
 Trp Ile Thr Asp Thr Gln Asn Val Ala His Leu His Lys Met Ala Gly  
 270 275  
 gca gag caa gaa agt ggc ccc gag gag ccc ctg gta gtc cag ttg gcc 963  
 Ala Glu Gln Glu Ser Gly Pro Glu Glu Pro Leu Val Val Gln Leu Ala  
 280 285 290 295

FIG. 2C



aag act gaa gcc gag tct ccc agg atg ctg gac cca cag acc gag gag 1011  
 Lys Thr Glu Ala Glu Ser Pro Arg Met Leu Asp Pro Gln Thr Glu Glu 310  
 300  
 aaa gag gcc tct ggg gga tcc ctc cag ctt ccc cac cag ccc ctc caa 1059  
 Lys Glu Ala Ser Gly Gly Ser Leu Gln Leu Pro His Gln Pro Leu Gln 325  
 315 320  
 ggc ggt gat gtg gtc aca atc ggg ggc ttc acc ttt gtg atg aat gag 1107  
 Gly Gly Asp Val Val Thr Ile Gly Gly Phe Thr Phe Val Met Asn Asp 340  
 330  
 cgc tcc tac gtg gcg ttg tgatggacac accactgtca aagtcaacgt 1155  
 Arg Ser Tyr Val Ala Leu 345

FIG. 2D

caggatccac gttgacattt aaagacagag gggactgtcc cggggactcc acaccaccat 1215  
 ggatgggaag tctccacgcc aatgatggta ggactaggag actctgaaga cccagcctca 1275  
 ccgcctaatac cggccactgc cctgctaact ttccccaca tgaagtctctg tgttcaaagg 1335  
 cttgatggca gatgggagcc aattgctoca ggagattttac tcccagttcc ttttcgtgcc 1395  
 tgaacgtttgt cacataaacc ccaaggcagc acgtccaaaa tgctgtaaaa coactttccc 1455  
 actctgtgag tccccagttc cgtccatgta cctgttccat agcattggat totcggagga 1515  
 ttttttgtct gttttgagac tccaaaccac ctctacccct ac 1557

FIG. 2E

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000

MFPEALLYVLSVSPFKIFILQVLGLVLTVD 30  
 FTNCDFEKIKAAAYLSTISKDLITYMSGTKS 60  
 TEFNNTVSCSNRPHCLTEIQSLTENPTAGC 90  
 ASLAKEMFAMKTKAALAIWCPGYSETQINA 120  
 TQAMKRRKRKVTTNKCLEQVSLQGLWRR 150  
 FNRPLLKQQ

FIG. 3A

1 agtgtgaac tgggttgaa tgggtgtcca cgtatgttcc ctttgcctt  
 51 actatatgtt ctgtcagttt ctttcaggaa aatcttcac ttacaacttg  
 101 taggctggt gttaaacttac gacttcacca actgtgactt tgagaaagatt  
 151 aaagcagcct atctcagtac tatttctaaa gacctgatta catatatgag  
 201 tgggacccaa agtaccgagt tcaacaacac cgtctcttgt agcaatgggc  
 251 cacattgcct tactgaaatc cagagcctaa ctttcaatcc caccgcgggc  
 301 tgcgctcgc tcgccaaaaga aatgttgccc atgaaaaacta aggtgcctt  
 351 agctatctgg tgcccaggct attcggaac tcagataaat gctactcagg  
 401 caatgaagaa gaggagaaaa aggaaagtca caaccaataa atgtctggaa  
 451 caagtgtcac aattacaagg attgtggcgt cgcttcaatc gaccttact  
 501 gaaacaacag taaaccatct ttattatggt catatttcac agcaccacaaa  
 ta

FIG. 3B

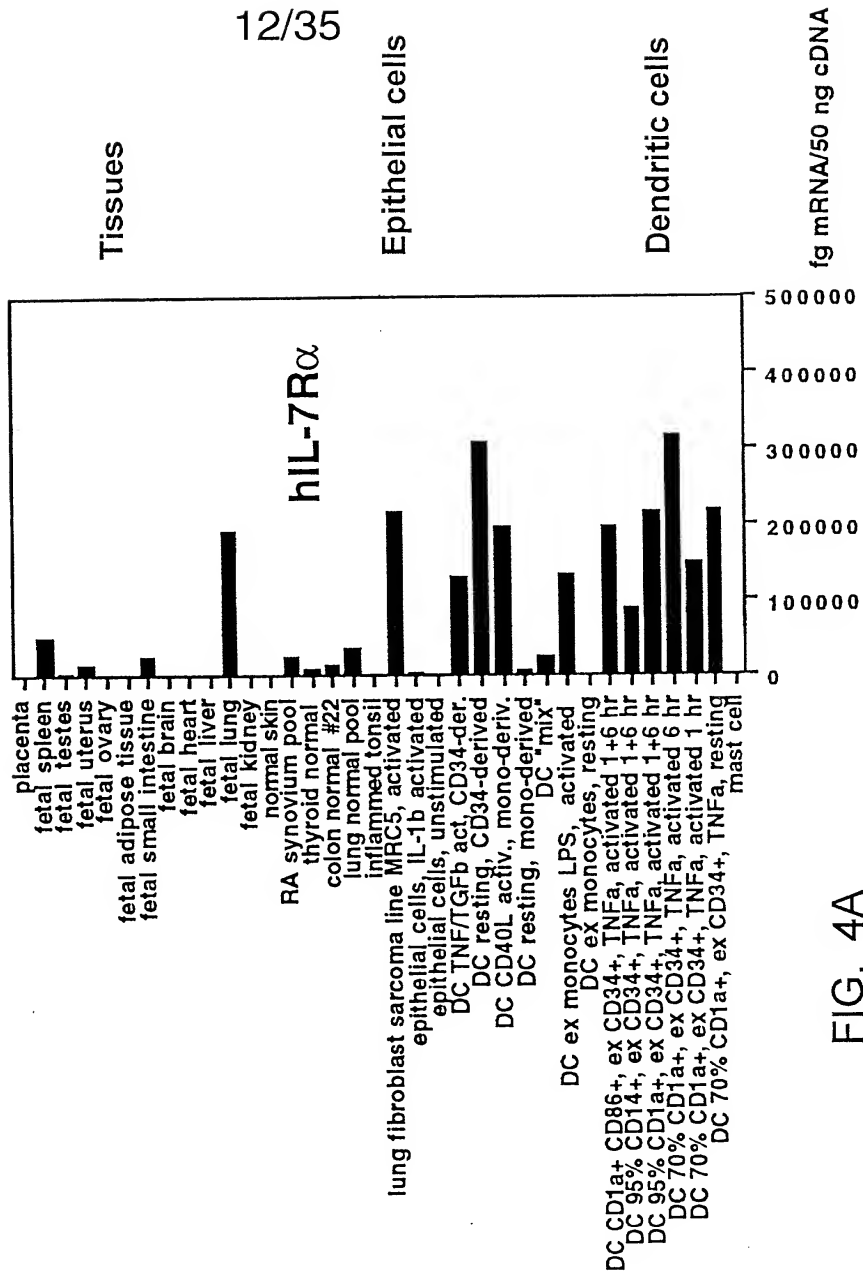


FIG. 4A

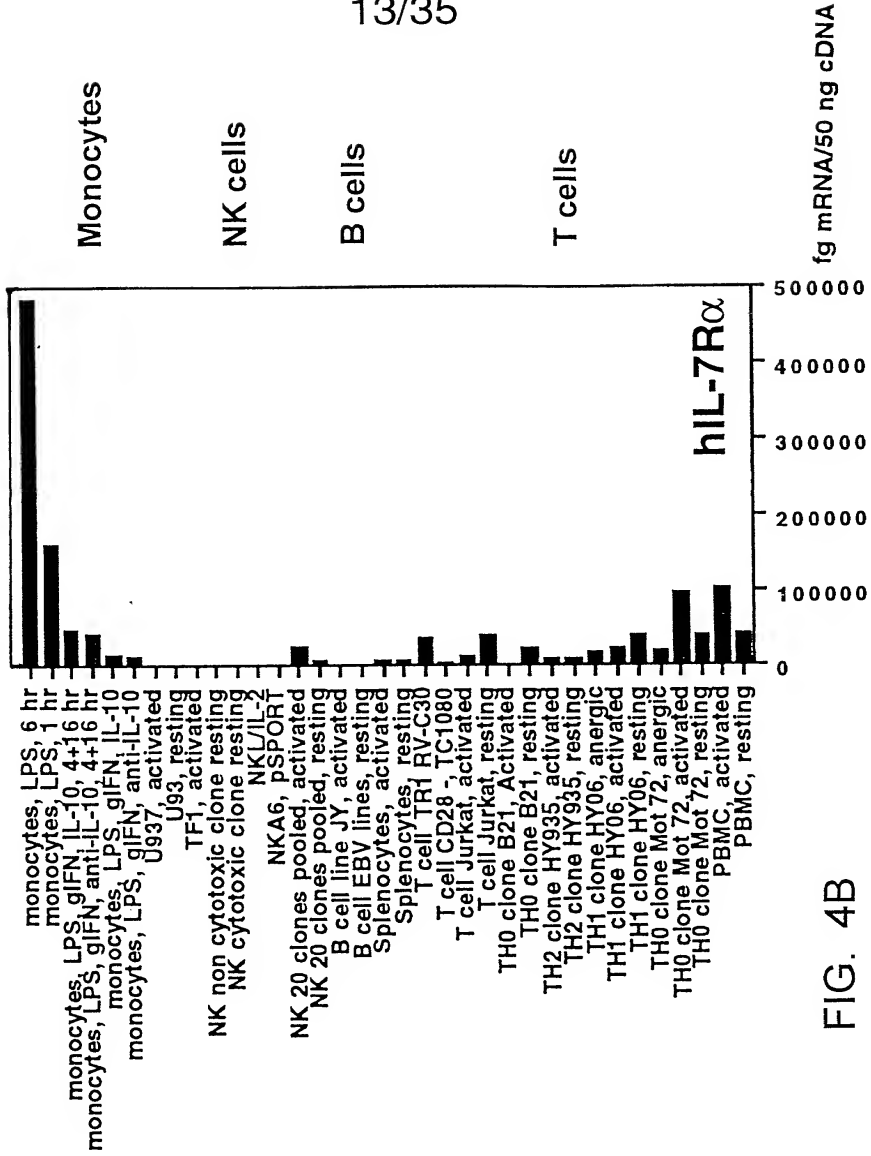


FIG. 4B

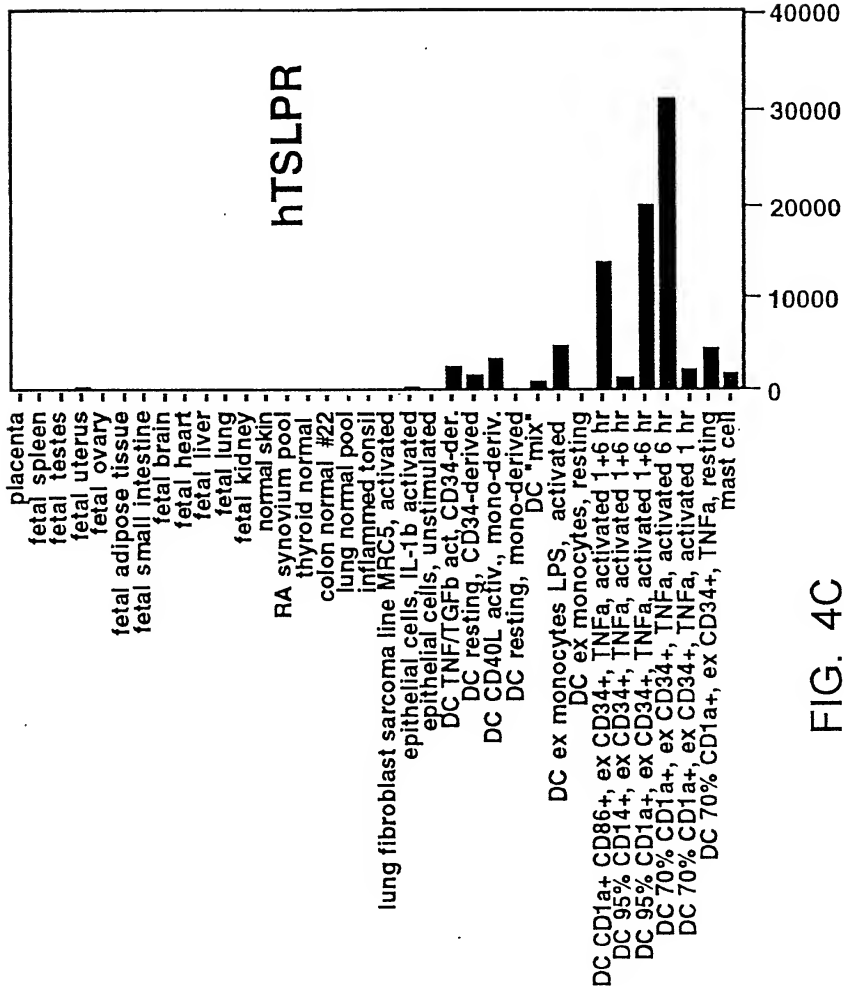


FIG. 4C

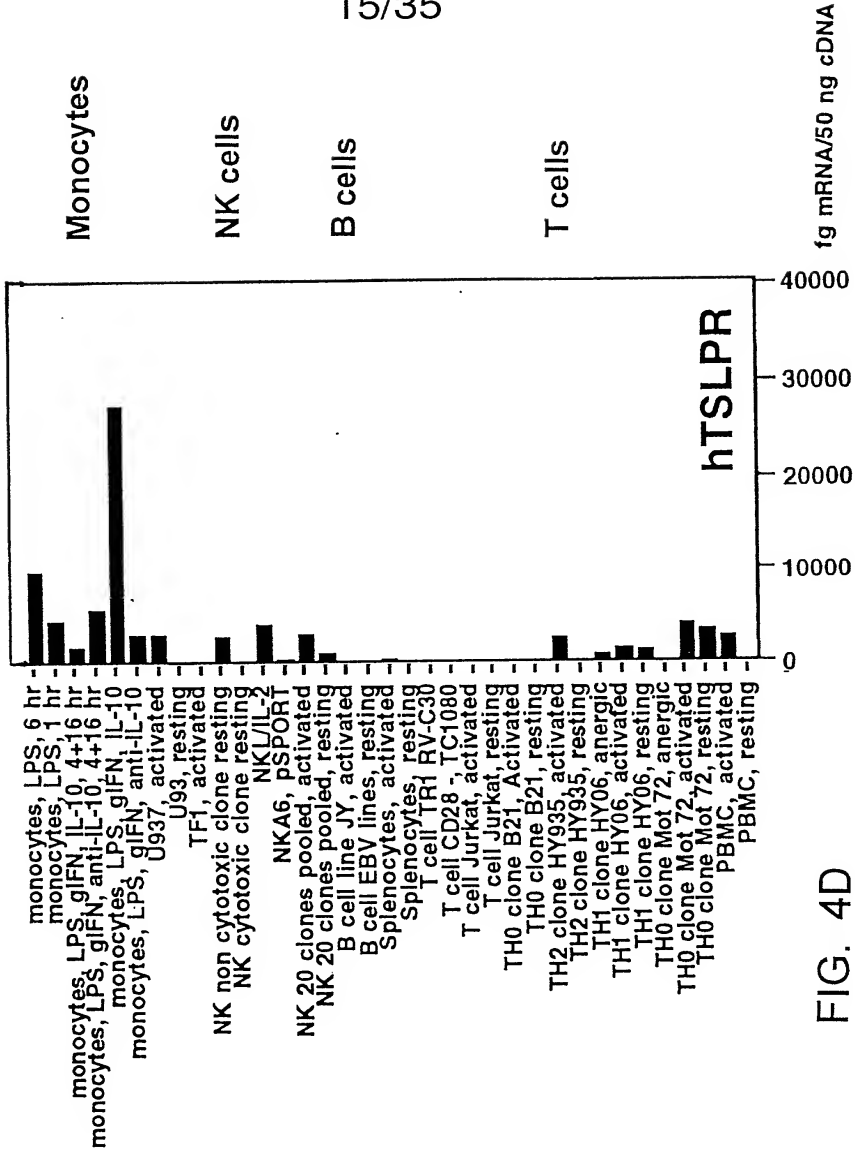
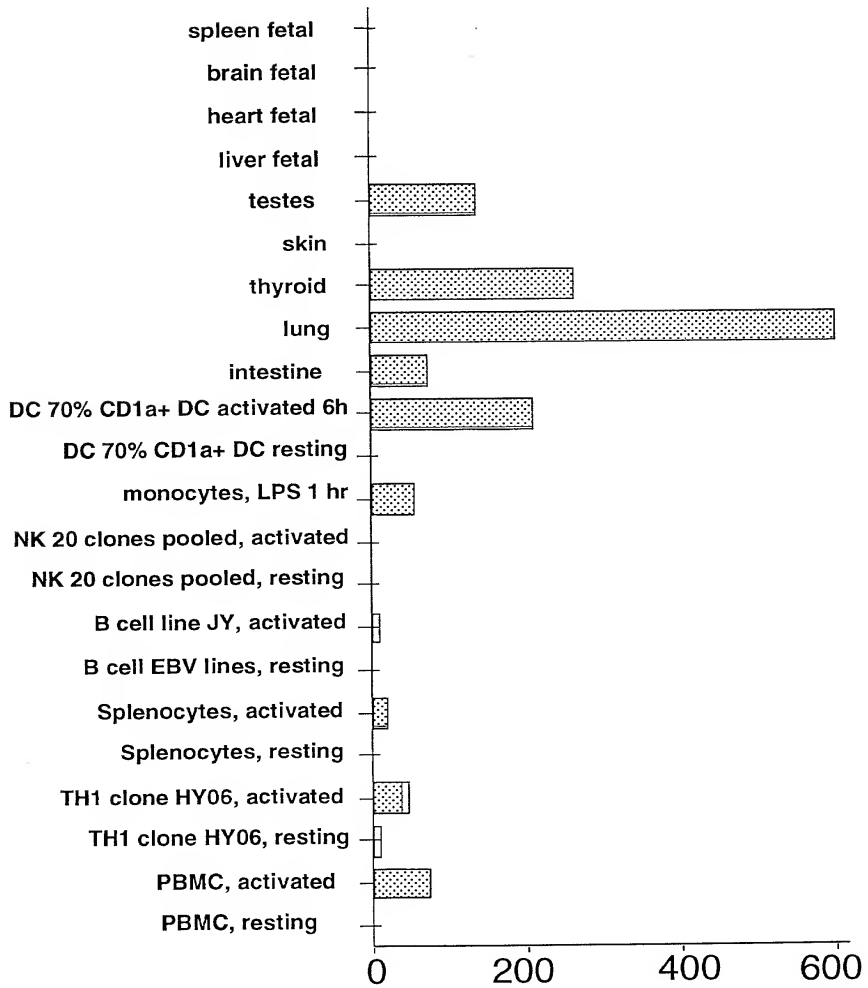


FIG. 4D

16/35

**IL50 mRNA (fg/50ng)**



**FIG. 4E**



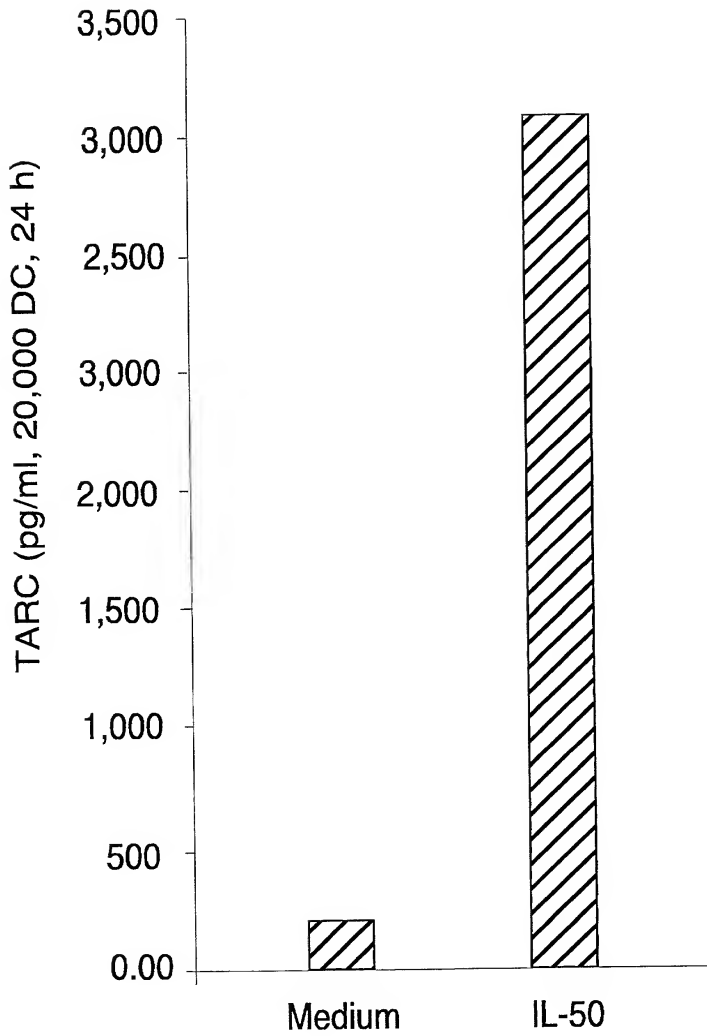


FIG. 5

18/35

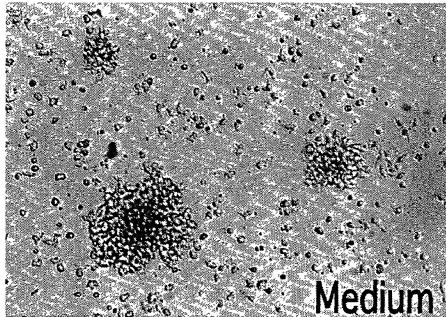


FIG. 6A

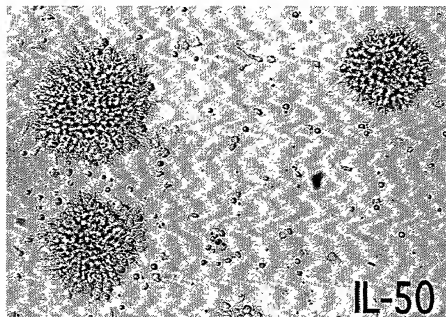


FIG. 6B

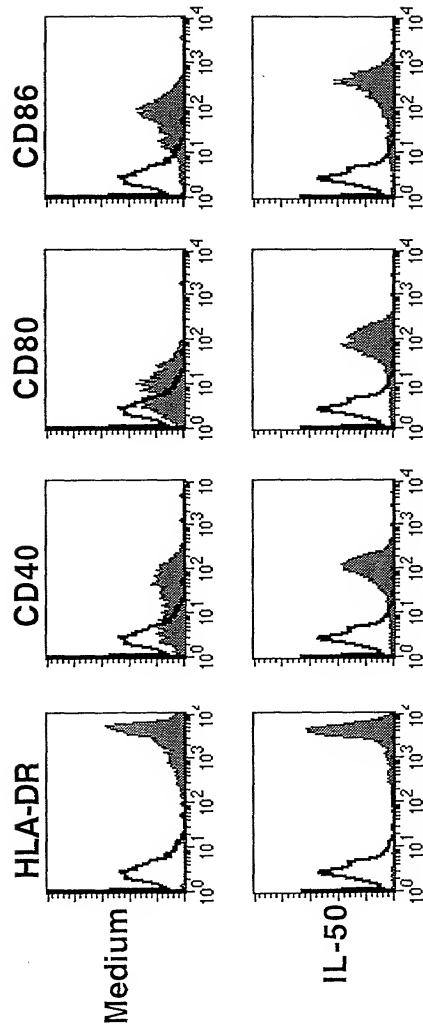


FIG. 7

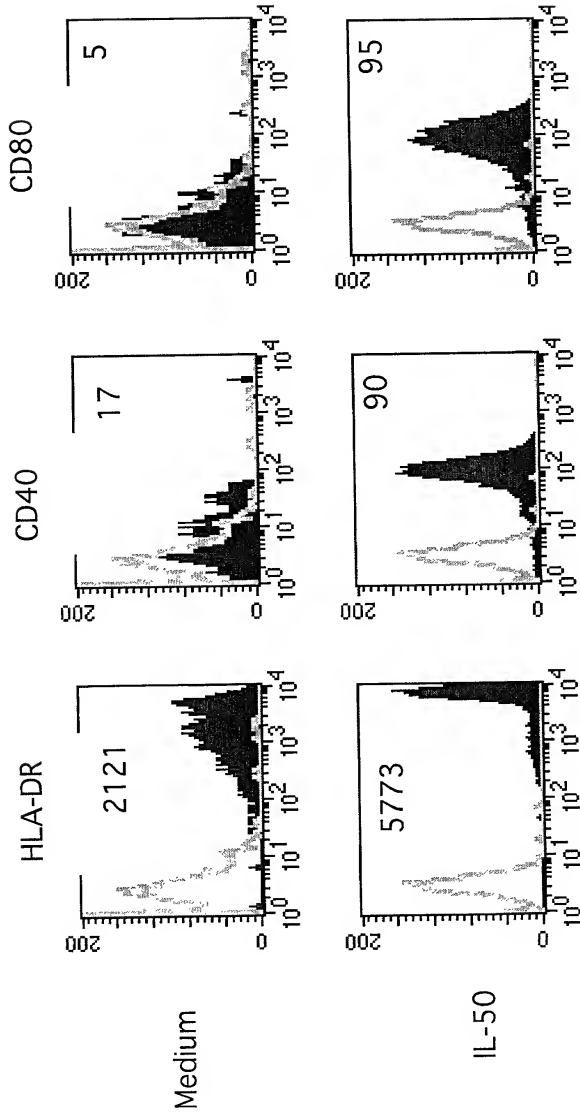


FIG. 8A

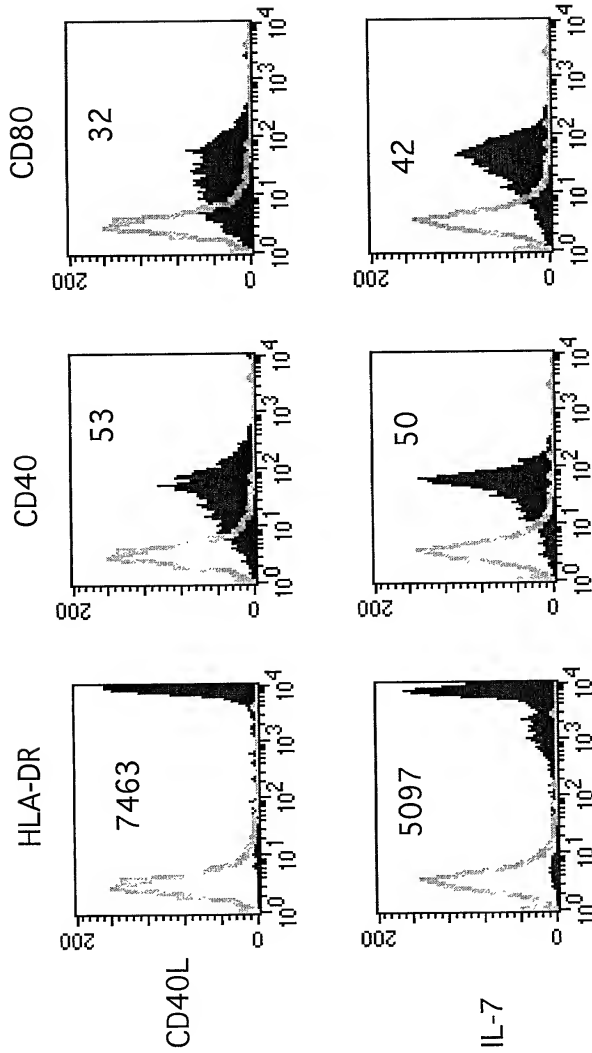


FIG. 8B

22/35

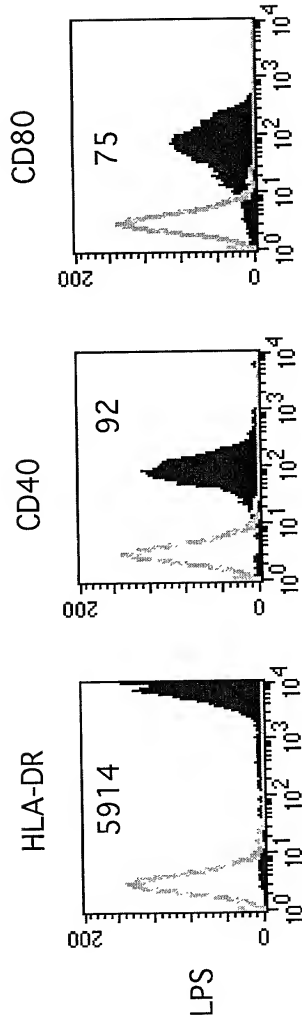


FIG. 8C

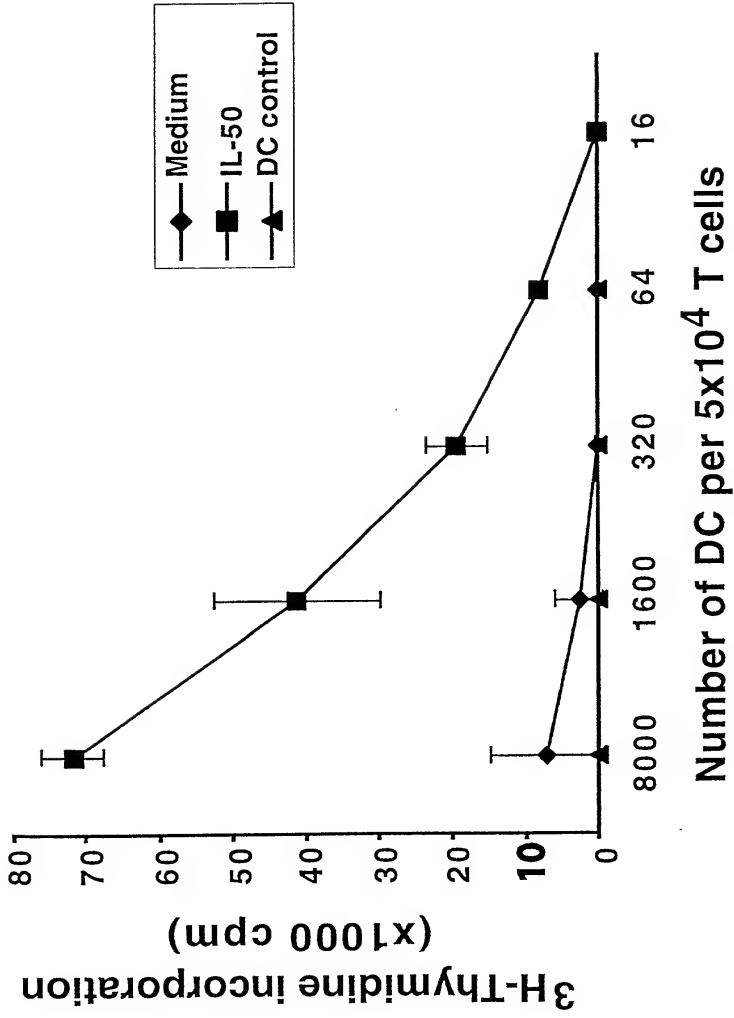


FIG. 9

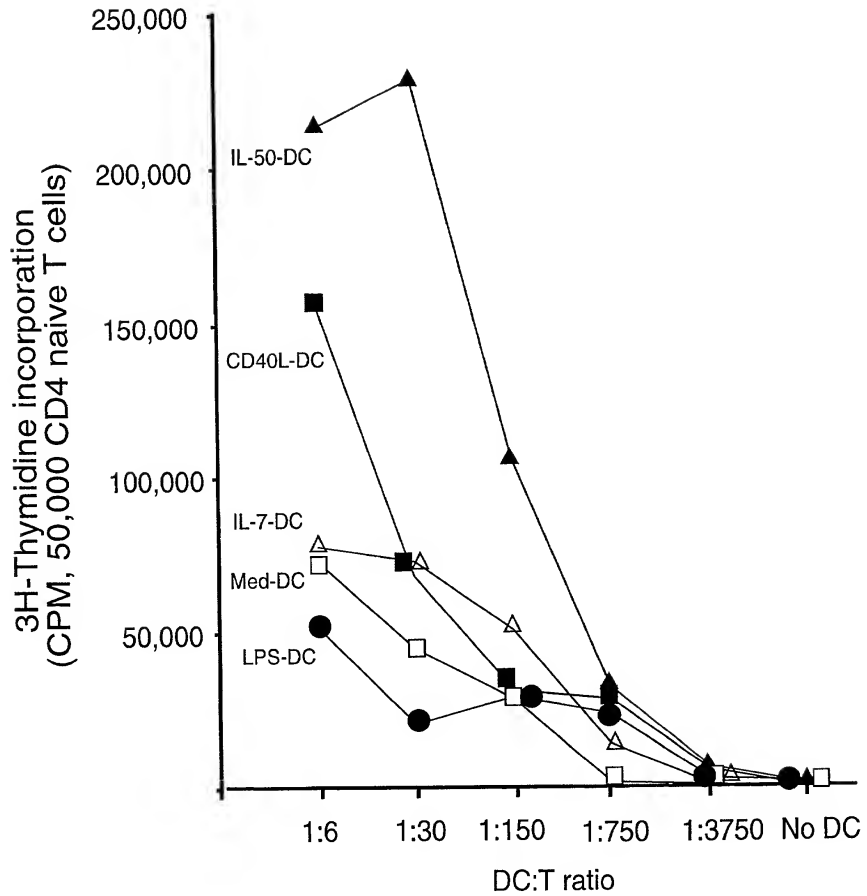


FIG. 10



25/35

IL-4

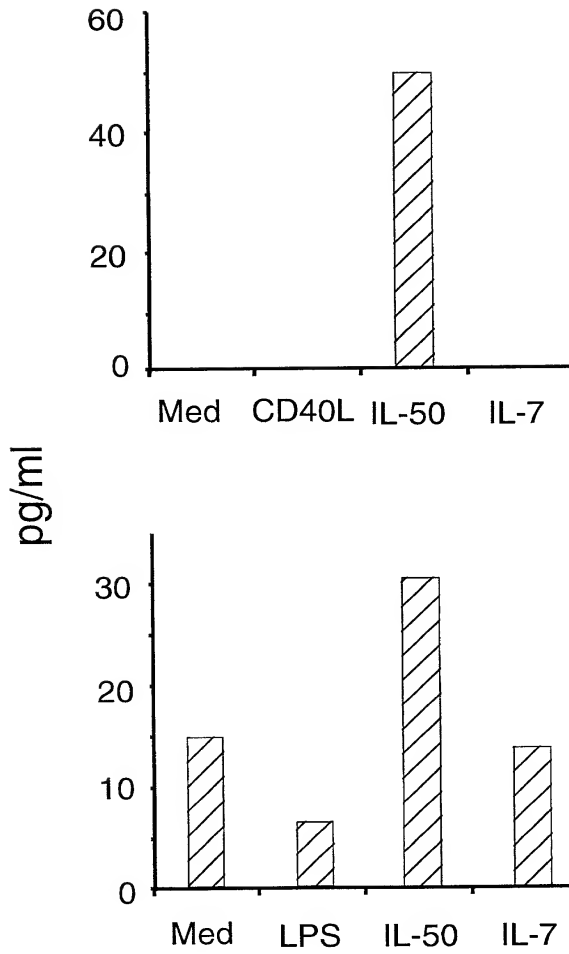


FIG. 11A

26/35

IL-13

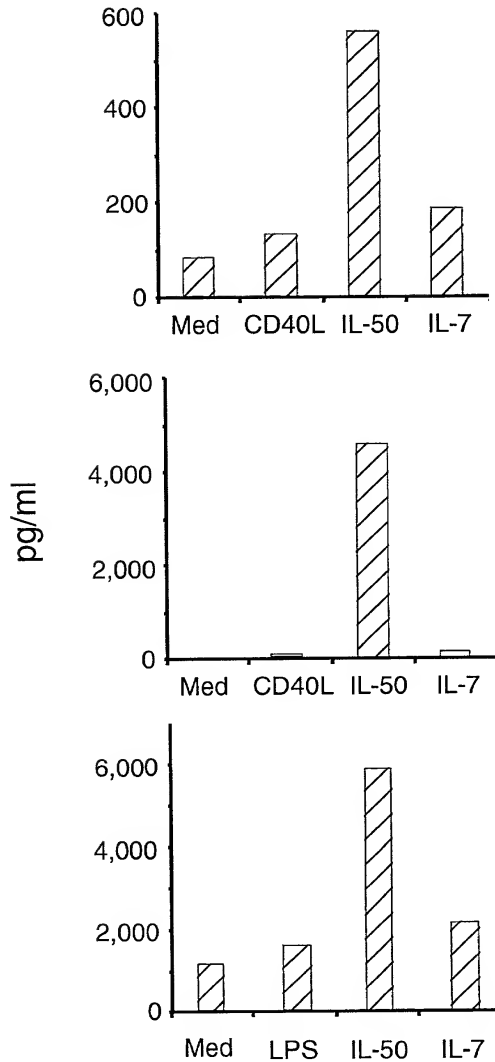


FIG. 11B

27/35

IFN- $\gamma$

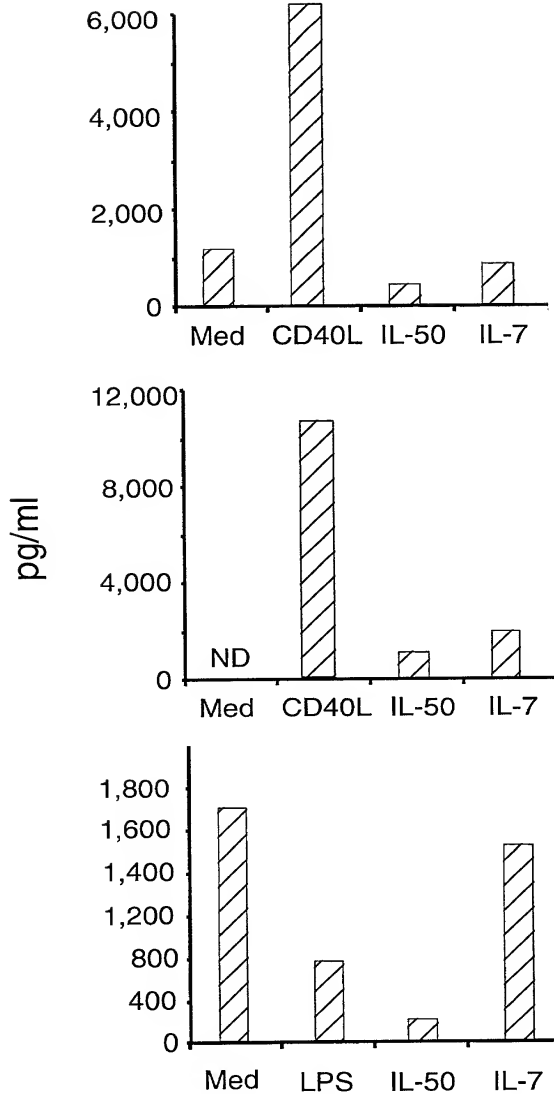


FIG. 11C

28/35

IL-10

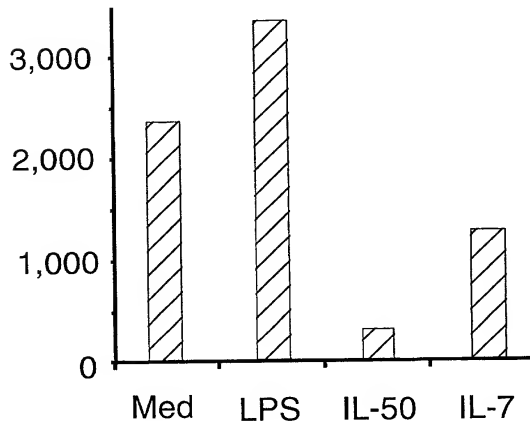
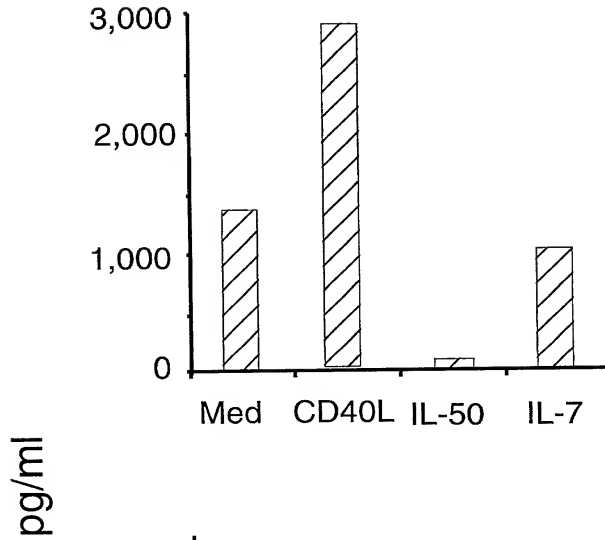


FIG. 11D

29/35

TNF- $\alpha$

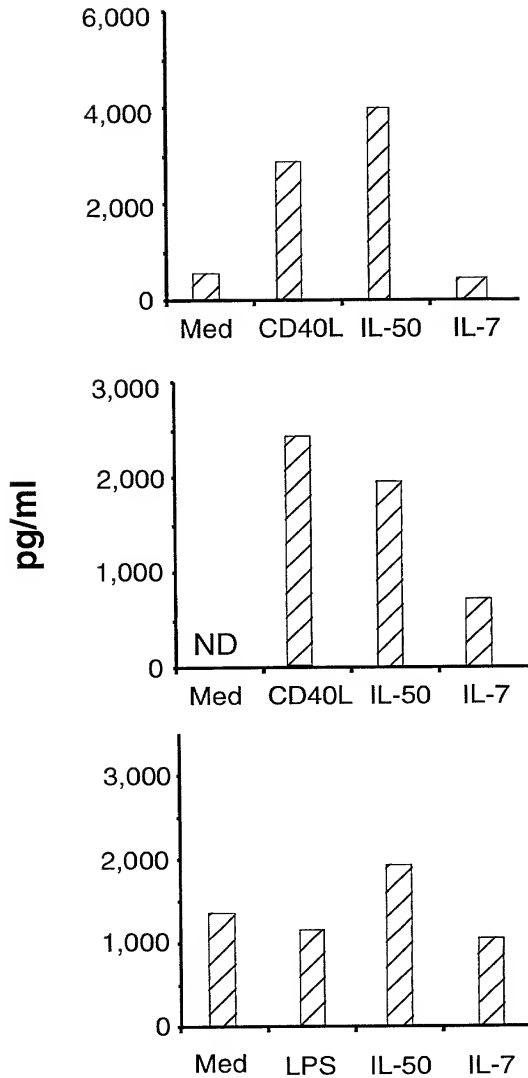


FIG. 11E

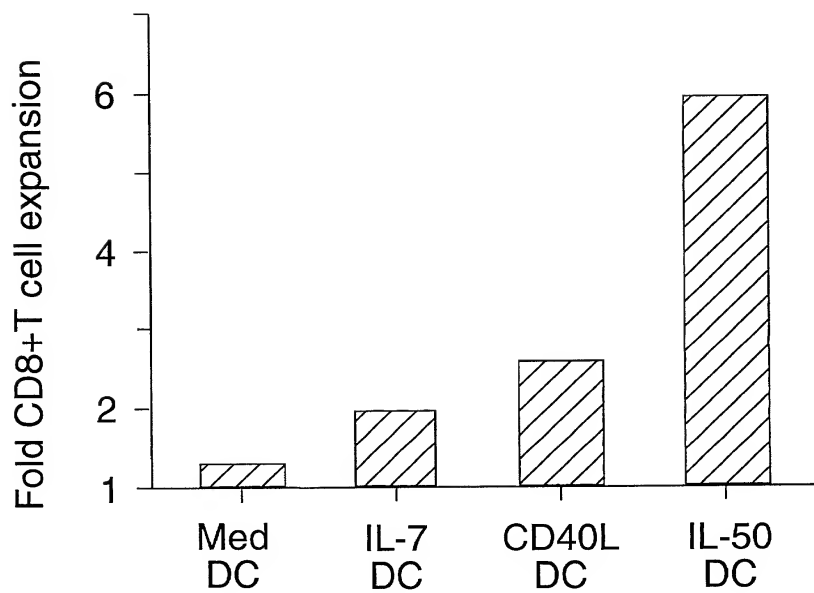


FIG. 12

31/35

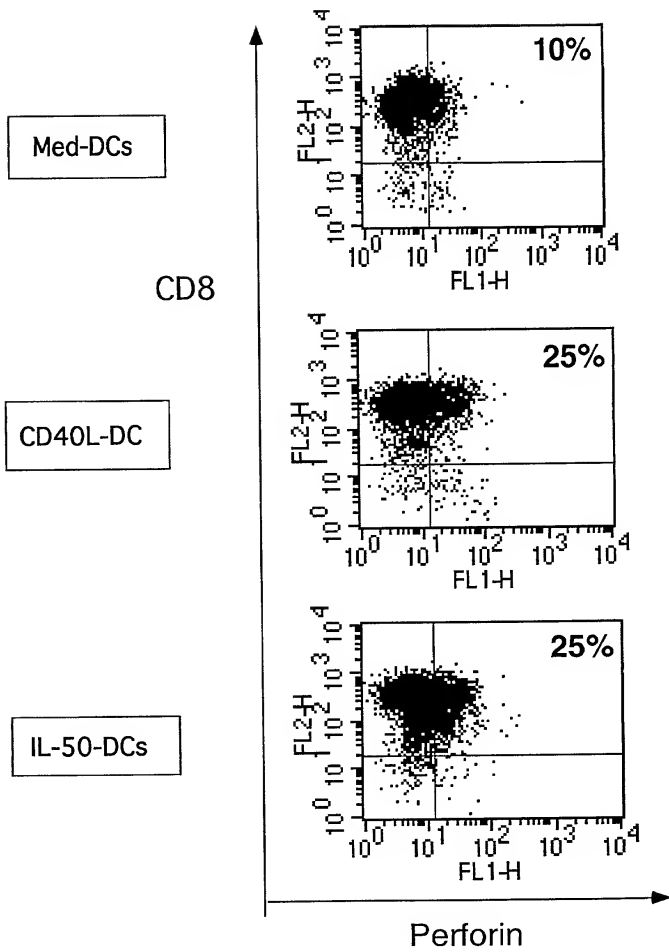


FIG. 13

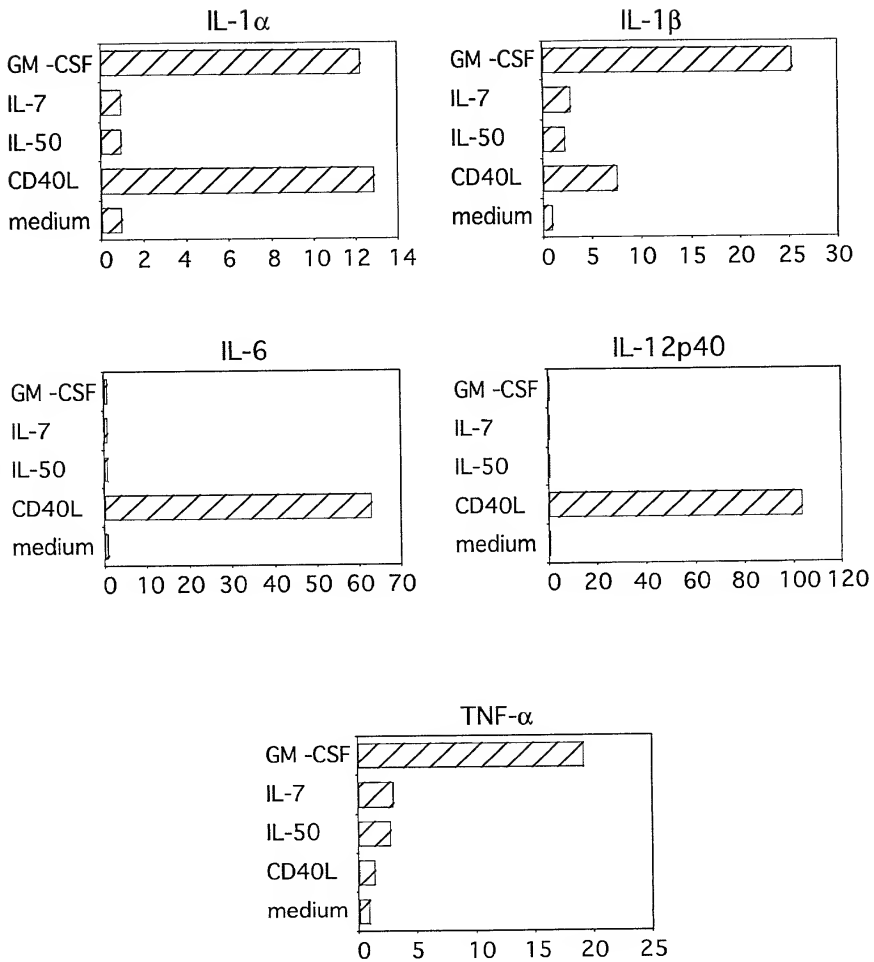


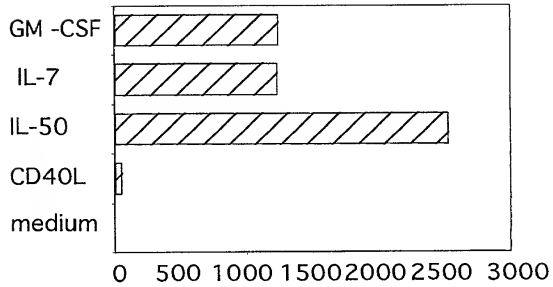
FIG.14A



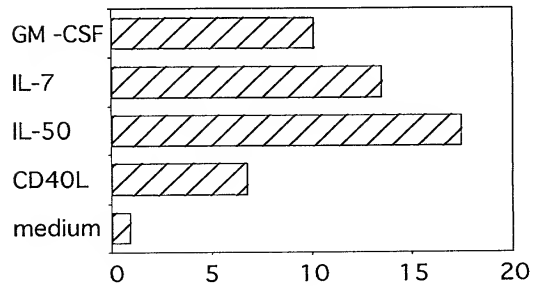
33/35

Th2

TARC



MDC



DC+Naive

MIP3-beta

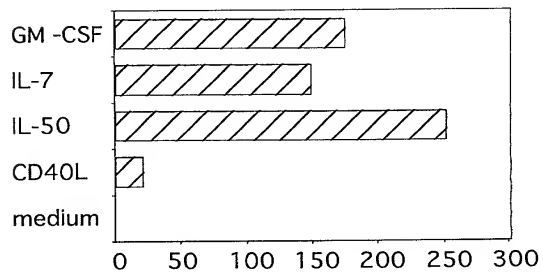
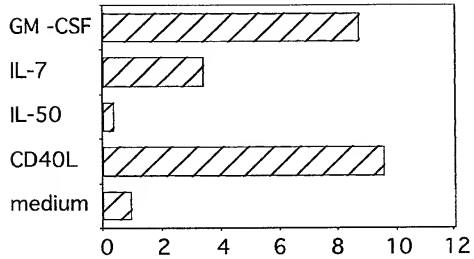


FIG. 14B

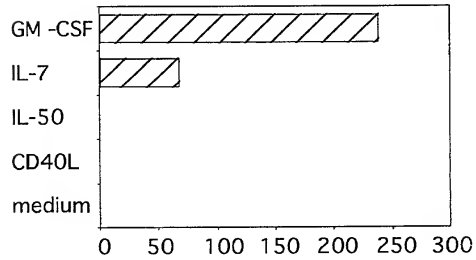
34/35

Th2+Th1

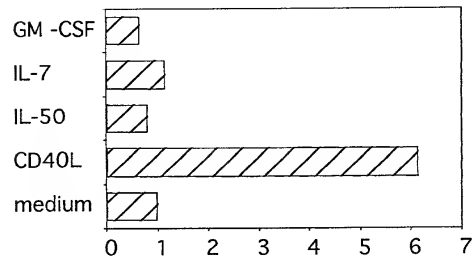
MCP-1



MCP-4



RANTES



Th1

MIG

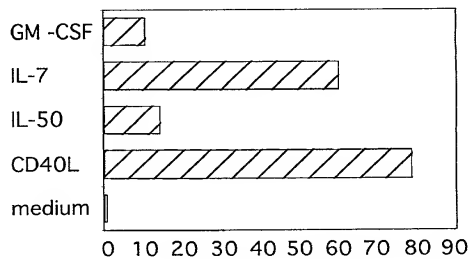


FIG. 14C

35/35

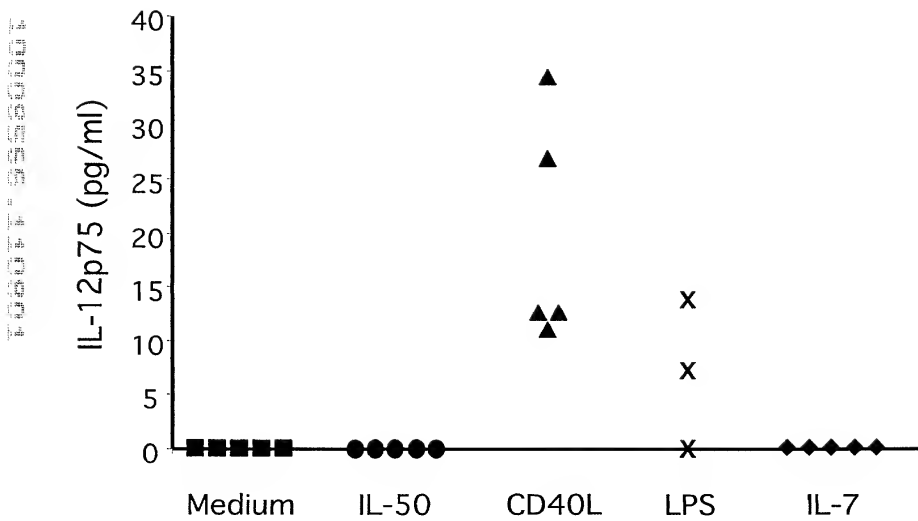


FIG. 15